

CLAIMS

1. (currently amended) A scribing method for wafers, comprising: wherein a defined beam is directed onto said wafer by means of a beam generator means so as to remove some wafer material from a wafer region, characterized by the further step of generating
applying a first radiation pulse to the wafer having a predeterminable energy density and
used to create that creates a deep pit in said wafer and thereby causes
contaminants to be placed onto the wafer; and separating the area of the wafer
receiving the first radiation pulse from the rest of the wafer with a shield
fusing the contaminants onto the wafer by applying to the wafer a second radiation pulse
having an energy density lower than that of the first radiation pulse.
2. (currently amended) The method according to Claim 1, characterized in that a local plasma is generated for creating said deep pit wherein the first radiation pulse and the second radiation pulses are laser pulses.
- 3 - 15. (canceled).
16. (previously presented) The method according to Claim 1, characterized in that the depth of said pit is within the range between 3 μm and 10 μm .
17. (original) The method according to Claim 16, characterized in that the depth of said pit is within the range between 4 μm and 6 μm .
18. (withdrawn) A wafer scribing device including a wafer mount and a beam generator means by means of which at least one defined beam can be directed onto said wafer, characterized in that a radiation pulse can be generated by means of which a deep pit can be created in said wafer, whereas the pit is deep enough to remain a pit throughout subsequent manufacturing steps of said wafer.

19. (withdrawn) The wafer scribing device according to Claim 18, characterized in that at least one optical element is provided by means of which it is possible to focus said radiation pulse, with said optical element being disposed for displacement along the direction of propagation of said radiation pulse in particular.
20. (withdrawn) The wafer scribing device according to Claim 18, characterized in that the radiation energy emerging from said beam generator means is adjustable.
21. (withdrawn) The wafer scribing device according to Claim 18, characterized in that said beam generator means emits radiation pulses of different power levels at short intervals, particularly in alternation.
22. (withdrawn) The wafer scribing device according to Claim 18, characterized in that said beam generator means comprises at least two beam generator means emitting radiation pulses of different power.
23. (withdrawn) The wafer scribing device according to Claim 22, characterized in that said beam generator means comprises moreover at least one beam deflector unit.
24. (withdrawn) The wafer scribing device according to Claim 18, characterized in that said beam generator means comprises at least one laser.
25. (withdrawn) The wafer scribing device according to Claim 18, characterized in that one fraction of said radiation pulse can be masked out.
26. (withdrawn) The wafer scribing device according to Claim 25, characterized in that a central, particularly circular, portion of said radiation pulse can be masked out by means of an aperture.

27. (withdrawn) A system for manufacturing semiconductor devices, specifically semiconductor processors, including a wafer scribing device according to claim 1.

28-30 (canceled)